

Ten Reasons to be Optimistic About the Climate

1. Did you know...

We can end the climate crisis by 2050?

We all want to restore a climate that can support the lives of our children and future generations. The fact that we could do so, however, is still a new idea in the climate-action world. When enough people demand a safe, pre-industrial climate by 2050, we can get there!

2. Climate restoration means net-zero CO2 emissions...and far beyond

Today we pump about 36 billion tons of CO2 into the air each year. We need to stop adding CO2-- by transitioning to clean energy. But to restore our climate, we also need to remove the trillion tons already up there, from 200 years of fossil-fuel use. With methods perfected by nature over millions of years, we could remove 60 billion tons a year for 20 years. That comes to a trillion tons — and the job will be done by 2050.

3. Restoring a safe climate honors the original intent of climate work

The world's climate goal — to “stabilize greenhouse gases” — was set during the 1980s. What's now dubbed “net-zero emissions” made sense then — before climate chaos began. But if we “stabilize” CO2 levels where they are now, or in 2050, climate chaos will only get worse. By 2050, CO2 levels will be more than 50 percent higher than humans have ever survived long-term.

To fulfill the original intent of climate action — a safe climate — we need to restore safe levels of CO2 before we stabilize them. And we can do so, given the will.

4. We're making climate restoration an idea whose time has come

In July 2023, California's Senate unanimously passed a resolution calling on the state and the nation to restore our climate. Similar resolutions are being considered in other states and at the national level.

In 2024, a huge institutional shift is starting. The Bezos Earth Fund framed their Greenhouse Gas Removal (GHGR) Ideation Prize around the goal of “returning greenhouse gas concentrations to pre-industrial levels.”

MIT announced in February 2024 that “Restoring the atmosphere” is one of their new climate missions.

5. We could restore a safe climate by following Nature's lead

Nature constantly pulls CO2 from the atmosphere, mainly through photosynthesis — green plants absorbing CO2 to grow — and making limestone, which is nearly half CO2 by weight.

Ten times in the last million years, Nature reduced the planet's temperature as part of the ice age cycle — with photosynthesis, but with a twist. The ocean is where most of this large-scale, planet-cooling photosynthesis takes place. Restoring vegetation in the ocean can restore sea life as well.

Scientists have also figured out how to make synthetic limestone, so we can literally build and pave with CO2!

6. We can replicate how Nature pulls down CO2: an iron supplement in anemic parts of the ocean

Nature pulls the Earth toward an ice age by increasing dust storms: more iron-rich dust blows off land and out to sea, where it fertilizes patches of ocean that have other nutrients but are anemic (lack iron). Scientists only figured this out about 30 years ago.

Can we replicate nature? Of course. Are we mobilizing to do it? We're just starting.

With miniscule amounts of iron fertilizer, microscopic green plants called "phytoplankton" bloom, removing a lot of CO2. The phytoplankton is also the base of the marine food chain, so it feeds fish and other marine life. Then the CO2 sinks and gets stored away in the deep as the phytoplankton and other organisms die naturally.

7. Did you know...We can make our roads and buildings out of CO2!

Nature stores most of the CO2 on Earth in limestone, produced from CO2 and calcium by shellfish and coral. Recently scientists replicated the process, and now we can make "synthetic" limestone.

Concrete with synthetic limestone is already in buildings and runways at the San Francisco International Airport. This industry is waiting for more investment to expand worldwide.

Want to learn more and get involved? Start here!

- PeterFiekowsky.com
- ClimateRestoration.substack.com
- FoundationForClimateRestoration.org

Who is F4CR?

Founded in 2017, the Foundation for Climate Restoration is building a global movement to restore a safe climate for future generations. We work through education, communications, and advocacy. **Join us! Info@F4CR.org**

8. Restoration methods are natural, safe, and remarkably inexpensive

Effective, scalable, affordable climate restoration solutions copy Nature's methods: They're the product of scientific "biomimicry." Nature honed these CO2 removal processes over millions of years. Since Nature uses them on a large scale for free, we can put them to work very cheaply.

For instance, fertilizing anemic ocean patches with iron is expected to cost just a few cents for every ton of CO2 removed from the atmosphere. Compare that with \$500-\$1000 per ton for the high-tech industrial CO2 removal (CDR) methods we hear so much about. Even if entrepreneurs can reduce CDR costs to \$100/ton, natural-process methods would be thousands of times less expensive. It would only take an estimated \$1-2 billion a year for biomimicry methods to restore a safe climate by 2050. Thus ending the climate crisis could be financed by philanthropy alone.

9. By talking about climate restoration, you can share realistic climate optimism.

Spreading the word that We Can End the Climate Crisis will help achieve it. With your support, we look forward to updating our common goal to climate restoration very soon!

10. Your children and future generations will thank you!

